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Central Intelligence Agency

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DIRECTORATE OF INTELLIGENCE

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Japan: Prospect for Energy Trade with the United States [redacted] 25X1

Summary

US energy exports to Japan will probably not increase substantially during the 1980s. Japan remains committed to diversifying its sources of energy, but a new emphasis on cost reduction and pressure to meet existing contracts--despite slack demand--will preclude increased purchases of US coal and liquefied natural gas (LNG) in the near term. Any export of Alaskan oil, of course, remains under a legislative ban. Japanese purchases of US uranium enrichment services--in which the United States has a near monopoly--will remain stable, however. [redacted] 25X6

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This memorandum was prepared by [redacted] Japan Branch, Northeast Asia Division, Office of East Asian Analysis. Information available as of 5 June was used in its preparation. Comments and queries are welcome and may be directed to the Chief, Japan Branch, Northeast Asia Division, OEA, [redacted] 25X1 25X1

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Japanese Policy

Changes in the worldwide energy situation and in domestic demand have altered Japanese energy policy over the past decade. After the 1973 energy crisis, Tokyo sought to enhance the security and stability of its energy supplies by signing long-term contracts, developing alternatives to oil, and improving relations with Middle Eastern and Southeast Asian oil producing nations. As a result, Japan emerged from the 1978 oil crisis relatively unscathed. Since the early 1980s the world oil glut and the decline in domestic energy demand resulting from slower economic growth have lowered the sense of urgency in Tokyo's policies. Last November the Ministry of International Trade and Industry (MITI)--responsible for ensuring stable energy supplies and maintaining distribution--issued a long-term energy forecast that reflected a slowdown in the effort to reduce reliance on oil.

-- Energy demand estimates for 1990 were lowered 22 percent from the previous estimate in April 1982.

-- Oil dependence for 1990 was estimated at 53 percent compared with the previous estimate of 49 percent.

-- Projections on use of coal, hydropower, new fuels, and geothermal and nuclear energy were lowered significantly.

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Emphasis on cost reduction is a major feature of the new projections. During the 1970s Tokyo stressed diversification, almost to the exclusion of cost considerations. The new focus is an after-the-fact acknowledgement of efforts by Japanese energy importers to cut costs. Despite the profusion of long-range energy estimates, Tokyo's energy policy is basically short term, driven by current events. Japanese traders have been playing one supplier off against another to lower prices, and Tokyo would probably welcome development of new world supplies of oil, coal and LNG to keep prices down.

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We believe the new forecast is more realistic than previous ones. MITI's estimates have frequently been policy statements rather than attempts to assess the future accurately. The shift away from oil has slowed in recent years, and development of hydropower, synthetic fuels and new technologies has stagnated. With oil consumption and energy demand dropping in spite of relatively low prices, there has been little incentive to reduce reliance on oil. MITI recently eliminated synthetic fuel research from its budget because of lack of interest and funds. Energy research is financed by revenues from a crude petroleum tax--which have been decreasing along with oil consumption.

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US-Japan Joint Policy

Tokyo and Washington issued a joint statement on US-Japan energy cooperation in November. The statement--a result of lengthy consultations by the US-Japan Energy Working Group--included:

-- Initiation of a joint feasibility study for Alaskan LNG projects.

-- Increased steam coal imports by Japan.

-- Maintenance of metallurgical coal imports with the prospect of an increase with the recovery of the steel industry.

-- A joint effort to improve the price competitiveness of US coal.

-- The possibility of lifting the legislative ban on the export of Alaskan oil.

Tokyo was mainly interested in importing Alaskan oil but probably included the other provisions as a trade-off. The Japanese resisted making any definite purchase commitments for coal or LNG, however. 25X1

Bilateral Energy Trade

With this year's defeat of the legislation to lift the ban on oil exports, US-Japan energy trade revolves around coal, uranium and LNG. The relatively high cost of US energy products, previous commitments by Japanese companies to non-US suppliers, and pressure from other countries for stepped up imports will prevent an increase in the US share of the Japanese energy market. 25X1

Coal: The United States is the second largest supplier of coal to Japan, but a strong dollar and steep transportation and labor costs make US prices significantly higher than those of its competitors. For example, coal prices in Australia, Japan's largest supplier, are $10 to $15 per ton--roughly 20 percent--cheaper than in the United States. Other suppliers, such as China and South Africa, can offer even lower prices. As a result, US coal exports to Japan declined 40 percent in 1983, and market share declined from 32 percent to 20 percent. 25X1

Japan's depressed steel industry cannot use much more metallurgical coal from any source--and will avoid buying expensive US coal. Although US metallurgical coal is generally of higher quality than that of other suppliers, improved steel production technologies increasingly allow the use of lower grade coals. In addition, MITI estimates steel coal demand will rise

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only 10 percent by 1995. Coal imports have been much higher than consumption, and consumers have been scrambling to reduce both prices and amounts. Buyers were able to force an $11.75 per ton cut on the Chinese. They demanded similar reductions from the Australians, but received only 5 percent reductions of about $3.

Japan is under considerable pressure from all suppliers to maintain both prices and imports, but probably will attempt to do so only for those it views as long term suppliers, such as Australia. In spite of the current oversupply, Tokyo has just agreed to give China approximately $2 billion in low cost Export-Import Bank loans to develop the Chinese coal and oil industries. Japanese firms signed contracts to take some of the coal before the loans were granted.

Chances for increased imports of US steam coal, now very low, are somewhat better, but as with metallurgical coal, prices must become competitive. MITI, assuming that coal's share of electric power output will grow from 4.8 to 10 percent during the period, has optimistically forecast a 51 percent increase. The Power Association of Japan, which has a more realistic view of the possibilities of reducing oil dependence, has projected a 38 percent rise in steam coal demand to 39.2 million metric tons from 1982 to 1990.

MITI's estimate is a reflection of its desire for Japan to switch from oil to coal burning plants. Japan's nine powerful utility companies, the major steam coal consumers, have resisted, preferring to use oil and LNG. In addition, most new development programs are already committed to LNG and nuclear power. Coal fired plants, which must be larger than other energy plants, are unattractive in land-poor Japan. Coal plants also incur significant pollution control costs. Funds for research that might have identified ways to make coal use more attractive are being cut because of the shortfalls in crude oil tax revenues.

A MITI energy official told Embassy officers the Ministry welcomed a proposed feasibility study for a slurry pipeline to reduce western US steam coal transportation costs. He added, however, that Japan would not buy the coal unless it was competitively priced. Japanese mine equipment manufacturers and MITI's New Energy Development Organization (NEDO) have also expressed interest in slurry joint ventures that might transport steam coal in the 1990s, but it is the coal consumers who have

final say. Japanese coal purchasers probably will not sign long-term coal contracts necessary to attract investment for a slurry project. 25X1

LNG

Opportunities for increased Alaskan LNG exports to Japan may grow as the Japanese search for a greater diversity of LNG sources. Japan has a contract for 960,000 metric tons of Alaskan gas per year, but about 96 percent of its needs are filled into the 1990s by contracts with Australia, Brunei, Indonesia, and Abu Dhabi. These contracts are currently inflexible on amounts taken, and prices are non-negotiable. Japanese companies, probably interested in more suppliers in order to win negotiating room, have been investigating several LNG projects in Canada, Australia, Southeast Asia, and the Middle East, and have maintained a foothold in the long dormant Sakhalin project in the Soviet Union. In addition to new sources, Japan could probably expand purchases from existing suppliers under new contracts. 25X1

Tokyo is promoting a feasibility study for the Alaskan Yukon gas project 25X1 25X1 The Embassy in Tokyo reports that Japanese officials have made it clear that participation in the study is contingent on the understanding that Japan is making no purchase commitments. Although interested in Alaska's possibilities as an LNG supplier, the Ministry believes the TransAlaskaGas project (TAGS) to develop Yukon gas will not be profitable to operate, 25X1

-- TAGS would have to produce annually between 14 and 15 million metric tons--to be exported mainly to Japan--to be cost effective. With its other contracts, Japan could not consume that amount.

-- US companies may be hesitant to participate in the project if Japan cannot take the gas because of reluctance to ship LNG into the United States. Residents in west coast states are concerned about the safety of LNG shipment and processing.

-- Estimates that the United States may be gas short in the 1990s may preclude exports.

Furthermore, as with the coal slurry feasibility study, thus far only banks and trading companies, not end users, have expressed interest in TAGS. The Japanese are also investigating a much smaller, but more promising Alaskan LNG project. 25X1

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Nuclear Fuels

The United States has a near monopoly on uranium enrichment services, supplying over 85 percent of Japan's requirements. The United States supplies $450-500 million of enriched uranium to Japan annually, and Department of Energy sources believe Tokyo will probably renew its long-term contracts. Nuclear power is estimated to grow almost 100 percent by 1990 as a greater share of electric power is generated by reactors. 25X1

Although US exports will remain stable, Japan is attempting to diversify its nuclear fuel supplies in order to reduce dependence on any one source. Tokyo has signed an agreement to develop Chinese uranium resources and has invested in uranium projects in Africa, Canada, and Australia. Unhappy with US controls over reprocessing US-origin uranium, Tokyo also fears political concerns over proliferation may someday interfere with supplies and is trying to ensure future supplies by:

-- Developing its own reprocessing and enrichment capabilities.

-- Investing in breeder reactors.

-- Developing a diversity of uranium sources. 25X1

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Table 1

Japanese Imports of Coal by Major Source
(Unit: 1,000,000 MT and PCT)

Coking Coal Imports

Source	1983	Share	1982	Share
USA	14.4	25	23.4	37
Australia	28.1	48	25.2	39
Canada	10.2	17	9.6	15
S. Africa	3.0	6	3.3	5
China	1.4	2	1.3	2
USSR	1.4	2	1.1	2
Other	1	-----	2	
Total	59.5	100	65.9	100

Steam Coal Imports

Source	1983	Share	1982	Share
USA	.9	6	1.6	12
Australia	7.6	53	6.3	46
S. Africa	2.8	19	2.8	20
China	2.0	14	1.5	11
Canada	.6	4	1.3	9
USSR	.4	3	.2	1
Other	.1	1	.1	1
Total	14.4	100	13.8	100

Table 2

Japanese Imports of LNG by Major Source

1982

Source	Million Metric Tons	Percent Share
Indonesia	9.3	32
Saudi Arabia	6.4	22
Brunei	5.2	18
UAE	4.3	15
Australia	1.2	4
USA	1.0	3
Malaysia	---	--

1983

Source	Million Metric Tons	Percent Share
Indonesia	9.8	33
Saudi Arabia	5.2	18
Brunei	5.3	18
UAE	3.9	13
Australia	1.2	4
USA	1.4	5
Malaysia	1.2	4

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Table 3

Japanese Purchase of US Enrichment Services from DOE Facilities

Fiscal Year	Amount (million US $)
1980	75
1981	132
1982	427
1983	359

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